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U.S. Application No. 10/720,949 Examiner SIKRI, Art Unit 2109
Response to February 28, 2007 Office Action**REMARKS**

In response to the Office Action dated February 28, 2007, the Assignee respectfully requests reconsideration based on the above amendments and on the following remarks. The Assignee respectfully submits that the pending claims distinguish over the cited documents to *Balachandran* and *Kato*.

Claims 1-20 are pending in this application.

The United States Patent and Trademark Office (the "Office") objected to the title. The Office also rejected claims 1-3, 9, 11-13, and 19-20 under 35 U.S.C. § 102 (e) as being anticipated by U.S. Patent 6,567,375 to Balachandran, *et al.* Claims 4-8, 10, and 14-18 were rejected under 35 U.S.C. § 103 (a) as being obvious over *Balachandran* in view of U.S. Patent Application Publication 2002/0112060 to Kato.

The Assignee shows, however, that the pending claims cannot be anticipated or obviated. The pending claims recite, or incorporate, features that are not disclosed by *Balachandran* and *Kato*, whether considered alone or in combination. The Assignee thus respectfully requests removal of the rejections.

Objection to Title

The Office objected to the title. The title has been amended to "Methods, Systems, and Products for Providing Recursively Segmented Communications Services."

Rejection of Claims under § 102 (e)

The Office rejected claims 1-3, 9, 11-13, and 19-20 under 35 U.S.C. § 102 (e) as being anticipated by U.S. Patent 6,567,375 to Balachandran, *et al.* A claim, however, is only anticipated when each and every element is found in a single prior art reference. *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d (BNA) 1051, 1053 (Fed.

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Cir. 1987). See also DEPARTMENT OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE, § 2131 (orig. 8th Edition) (hereinafter "M.P.E.P.").

Claims 1-3, 9, 11-13, and 19-20 cannot be anticipated by *Balachandran*. These claims recite, or incorporate, many features that are not disclosed by *Balachandran*. All the independent claims, for example, recite "*recursively segmenting the first data stream into segments, such that a characteristic of a preceding segment determines how a current segment is segmented*" (emphasis added). Support for such features may be found at least at paragraph [0013] of the as-filed specification. Examiner Sikri is correct — *Balachandran* transmits a first segment of a packet using a first modulation and coding scheme, while a second segment is transmitted using a "more robust" modulation and coding scheme. U.S. Patent 6,567,375 to *Balachandran, et al.* (May 20, 2003) at column 2, lines 45-50. *Balachandran* uses a packet's size to determine which coding scheme is applied. "Generally speaking, when the packet size is very small ..., the most robust coding scheme [MCS5]" is used. *Id.* at column 6, lines 18-20. "As packet size increases," another coding scheme is used. *Id.* at column 6, lines 20-22. *Balachandran*, then, chooses the coding scheme based upon a current packet's size. *Balachandran* fails to teach or suggest "*recursively segmenting the first data stream into segments, such that a characteristic of a preceding segment determines how a current segment is segmented*" (emphasis added). *Balachandran*, then, cannot anticipate claims 1-3, 9, 11-13, and 19-20.

The independent claims recite additional distinguishing features. *Balachandran* fails to teach or suggest "*recognizing a repetitive segment and inserting a data compression result of a preceding segment to reduce processing of redundant segments.*" Support for such features may be found at least at paragraph [0027] of the as-filed specification. Because *Balachandran* does not teach or suggest these features, *Balachandran* cannot anticipate claims 1-3, 9, 11-13, and 19-20.

The dependent claims also recite distinguishing features. Claim 2, for example, recites "*observing a sequence of packets having a similar structure to a previous sequence of packets and segmenting the sequence of packets to have similar content to the previous sequence of*

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packets." Support for such features may be found at least at paragraph [0026] of the as-filed specification. Claim 3 recites "*using a chronological characteristic of a preceding segment to describe a current segment.*" Support for such features may be found at least at paragraph [0026] of the as-filed specification. Claim 4 recites "*replacing a complex segment with a common descriptor to produce an abbreviated annotation.*" Support for such features may be found at least at paragraph [0028] of the as-filed specification. Because *Balachandran* is silent to at least these features, *Balachandran* cannot anticipate claims 1-3, 9, 11-13, and 19-20. Examiner Sikri is thus respectfully requested to remove the § 102 (e) rejection of these claims.

Rejection of Claims under § 103 (a)

Claims 4-8, 10, and 14-18 were rejected under 35 U.S.C. § 103 (a) as being obvious over *Balachandran* in view of U.S. Patent Application Publication 2002/0112060 to *Kato*. If the Office wishes to establish a *prima facie* case of obviousness, three criteria must be met: 1) combining prior art requires "some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill"; 2) there must be a reasonable expectation of success; and 3) all the claimed limitations must be taught or suggested by the prior art. DEPARTMENT OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE, § 2143 (orig. 8th Edition) (hereinafter "M.P.E.P.").

Claims 4-8, 10, and 14-18 cannot be obvious. These claims recite, or incorporate, features that are not taught or suggested by the combined teaching of *Balachandran* and *Kato*. The proposed combination of *Balachandran* and *Kato* teaches the transmission of a first segment of a packet using a first modulation and coding scheme, while a second segment is transmitted using a "more robust" modulation and coding scheme. U.S. Patent 6,567,375 to *Balachandran, et al.* (May 20, 2003) at column 2, lines 45-50. The proposed combination of *Balachandran* and *Kato* also teaches a "resident active packet signal receiving unit" that may restore a plurality of packets "back to one packet." U.S. Patent Application Publication 2002/0112060 to *Kato* at [0224]. The proposed combination of *Balachandran* and *Kato* also describes a "circulating

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active packet signal receiving unit" that restores a plurality of packets "back to one packet." *Id.* at [0225]. *Balachandran* and *Kato* also describe a plurality of packets that may be "incorporated into a single packet" and then "divided ... into a plurality of packets" for transmission. *Id.* at [0244]. *Balachandran* and *Kato* also describe how a plurality of packets may be combined "so as to be a single packet for processing," however, the single packet may be divided "into a plurality of packets" and sent. *Id.* at [0356]. Still, though, the proposed combination of *Balachandran* and *Kato* fails to teach or suggest "*recursively segmenting the first data stream into segments, such that a characteristic of a preceding segment determines how a current segment is segmented*" (emphasis added). The proposed combination of *Balachandran* and *Kato* also fails to teach or suggest "*recognizing a repetitive segment and inserting a data compression result of a preceding segment to reduce processing of redundant segments*," as all the independent claims recite. The combined teaching of *Balachandran* and *Kato*, then, cannot obviate claims 4-8, 10, and 14-18.

Moreover, claims 4-8, 10, and 14-18 incorporate other distinguishing features. All the independent claims recite "*aggregating the result of the processing service and an unprocessed segment into a second data stream*" (emphasis added). Support for such features may be found at least at paragraph [0033] of the as-filed specification. No where does the proposed combination of *Balachandran* and *Kato* disclose or suggest aggregating a result of a processing service and unprocessed segments. Because *Balachandran* and *Kato* are silent to at least these features, claims 4-8, 10, and 14-18 cannot be obvious. Examiner Sikri is thus respectfully requested to remove the § 103 (a) rejection of these claims.

If any issues remain outstanding, the Office is requested to contact the undersigned at (919) 469-2629 or scott@scottzimmerman.com.

Respectfully submitted,

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